What is claimed is:

1. A process for preparing a LH-RH derivative which comprises subjecting a solution containing the LH-RH derivative to a step for treatment with a methacrylic synthetic adsorption resin and a step for treatment with an aromatic synthetic adsorption resin.

2. The process according to claim 1, wherein the LH-RH derivative is a peptide represented by the formula

5-oxo-Pro-His-Trp-Ser-Tyr-Y-Leu-Arg-Pro-Z

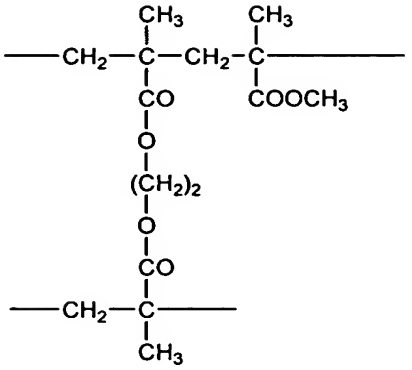
wherein Y indicates a residue selected from DLeu, DAla, DTrp, DSer(tBu), D2Nal and DHis(ImBzl), and Z indicates NH-C_2H_5 or Gly-NH_2, respectively, or a salt thereof.

3. The process according to claim 1, wherein the LH-RH derivative is a peptide represented by the formula

5-oxo-Pro-His-Trp-Ser-Tyr-DLeu-Leu-Arg-Pro-NH-C_2H_5

or its acetate.

4. The process according to claim 1, wherein said process comprises using a methacrylic synthetic adsorption resin having a repeating unit represented by the formula



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5. The process according to claim 1, wherein the aromatic synthetic adsorption resin is a styrene-divinylbenzene synthetic adsorption resin.

6. The process according to claim 5, wherein an average particle size of the styrene-divinylbenzene, synthetic adsorption resin is about 60 μm to about 150 μm.

7. The process according to claim 1, wherein said process comprises subjecting a solution containing the LH-RH derivative to the step for treatment with a methacrylic synthetic adsorption resin below about 10°C.

8. The process according to claim 1, wherein said process comprises subjecting a solution containing the LH-RH derivative to the step for treatment with an aromatic synthetic adsorption resin at about 10°C to about 20°C.

9. The process according to claim 1, wherein said process comprises subjecting a solution containing the LH-RH derivative to the step for treatment with a methacrylic, synthetic adsorption resin, followed by

subjecting to the step for treatment with an aromatic, synthetic adsorption resin.

10. The process according to claim 1, said process comprises passing a solution containing the LH-RH derivative through a resin in the step for treatment with a methacrylic synthetic adsorption resin and then eluting the LH-RH derivative, which is adsorbed on the resin, with an aqueous solution of acetic acid.

11. The process according to claim 10, wherein the concentration of an aqueous solution of acetic acid is about 0.01 M to about 0.50 M.

12. The process according to claim 1, wherein said process comprises passing a solution containing the LH-RH derivative through a resin in the step for treatment with a methacrylic, synthetic adsorption resin, followed by washing with an aqueous solution of ethanol, and then by eluting the LH-RH derivative that is adsorbed on the resin.

13. The process according to claim 1, wherein a solution containing the LH-RH derivative is that obtained by subjecting the LH-RH derivative protected with protective group(s) to a deprotection reaction followed by a neutralization reaction below about 10°C.

14. The process according to claim 1, wherein a solution containing the LH-RH derivative is that obtained by subjecting the LH-RH derivative protected with

protective group(s) to a deprotection reaction and then a neutralization reaction below about 10°C, followed by subjecting the resulting mixture to extraction of the LH-RH derivative and then concentration of the extract below 25°C.

15. The process according to claim 13 or 14, wherein the LH-RH derivative protected with protective group(s) is represented by the formula

5-oxo-Pro-His-Trp-Ser-Tyr-Y-Leu-Arg(X)-Pro-Z

wherein X indicates a protective group, Y indicates a residue selected from DLeu, DAla, DTrp, DSer(tBu), D2Nal and DHis(ImBzl) and Z indicates $NH-C_2H_5$ or $Gly-NH_2$, respectively.

16. Purified leuprorelin or a salt thereof, wherein the content of total related substances is about 1% or less.

17. Purified leuprorelin or a salt thereof, wherein the content of 5-oxo-Pro-D-His-Trp-Ser-Tyr-D-Leu-Leu-Arg-Pro-$NH-CH_2-CH_3$ or a salt thereof is about 0.3% or less.